Report on Ten Years of Implementing the Lower Colorado River MSCP

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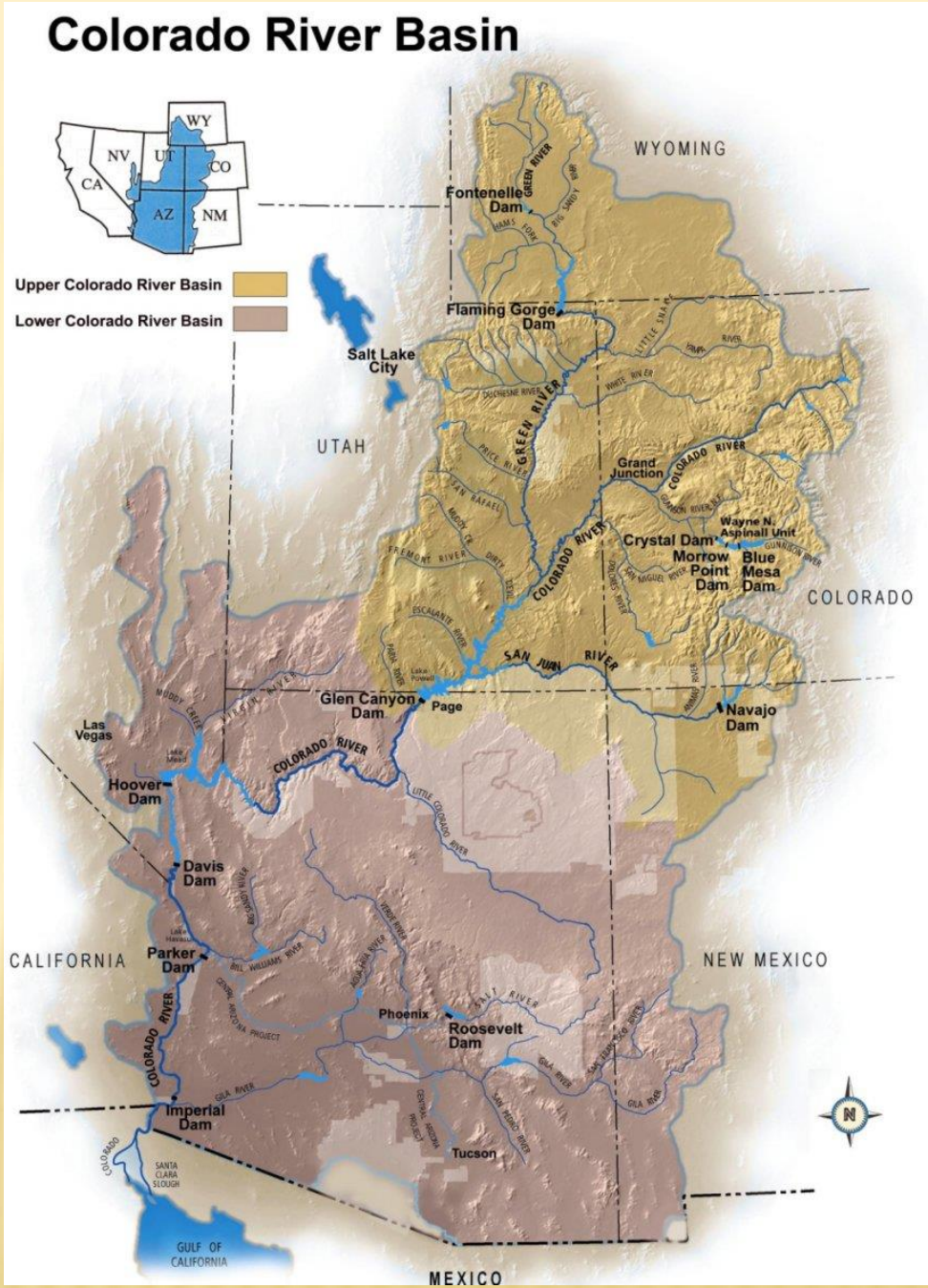
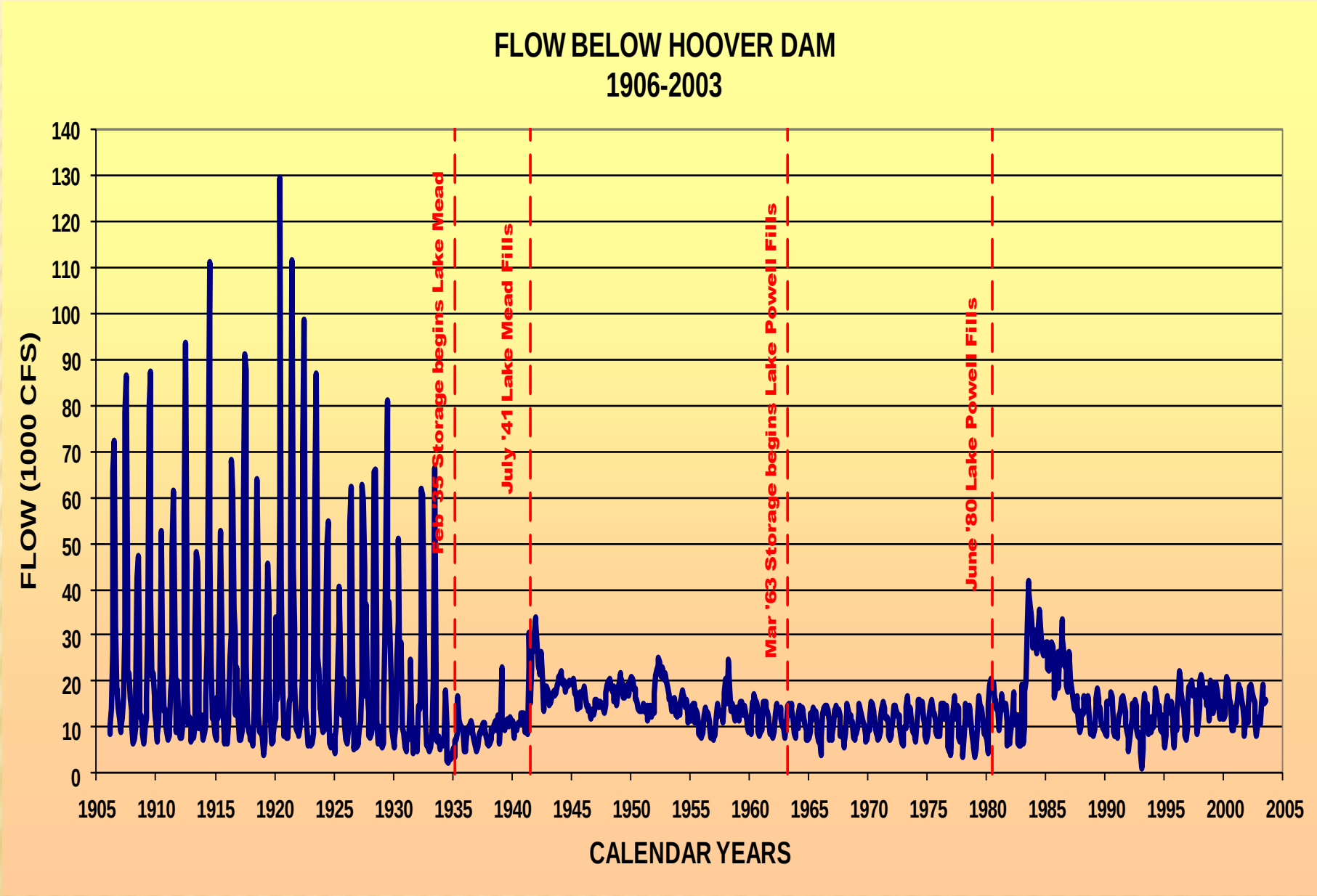
- 1922 Compact
- 1928 BCPA
- 1944 Treaty w/Mexico
- 60 MAF of storage
- Major diversions –
  - 40 million people
  - 5.5 million acres of agriculture
- Bankline & Levee construction



Environmental Consequences–

- Alteration of pre-development hydrograph
- Removal of native riparian vegetation
- Decoupling river from the floodplain (i.e., channelization and incisement)
- Habitat fragmentation
- Introduction of non-native aquatic and terrestrial species


FLOW BELOW HOOVER DAM
1906-2003
FLOW (1000 CFS)
CALENDAR YEARS
Feb '35 Storage begins Lake Mead
July '41 Lake Mead Fills
Mar '63 Storage begins Lake Powell Fills
June '80 Lake Powell Fills
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
1905
1910
1915
1920
1925
1930
1935
1940
1945
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1955
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1995
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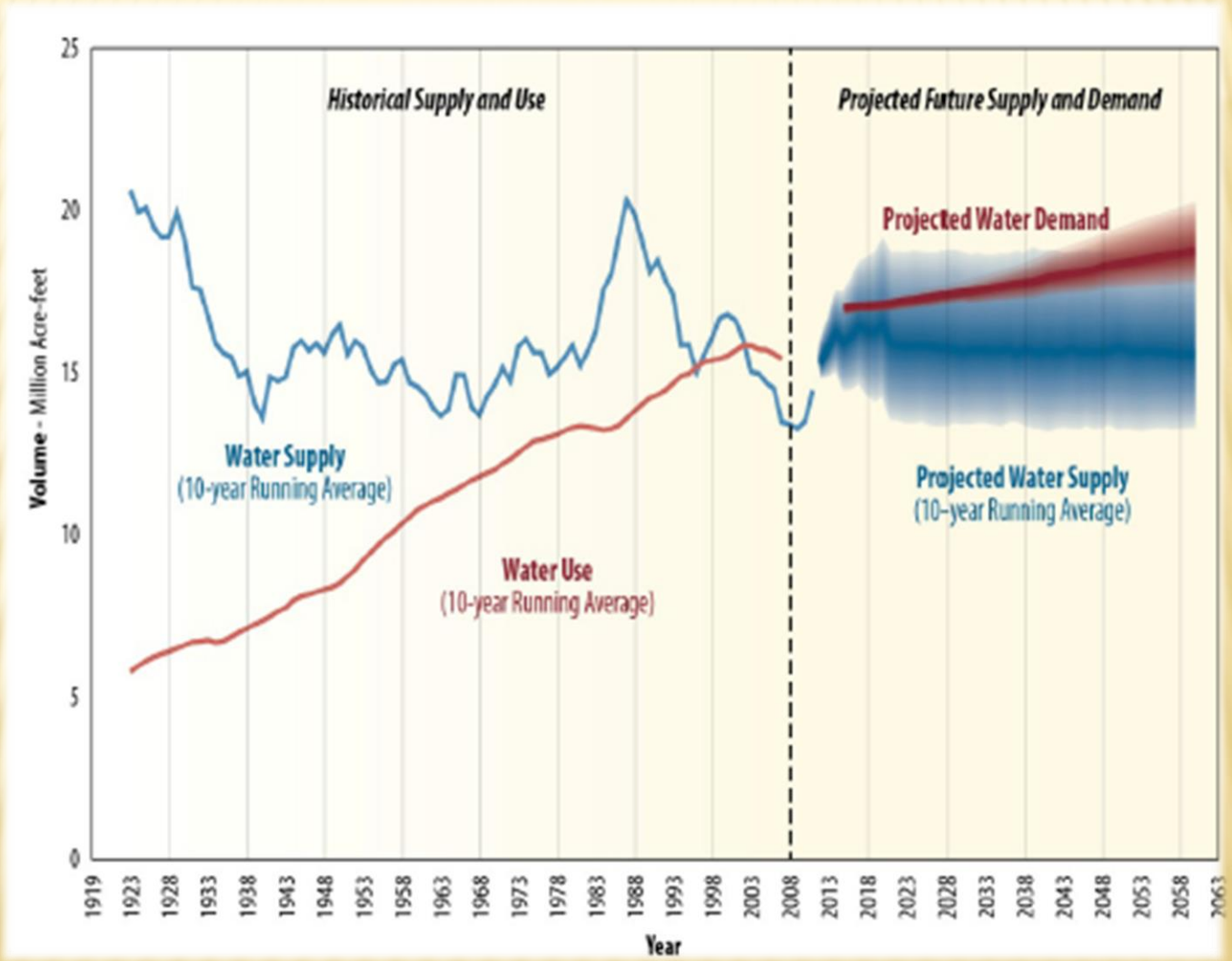
2005

Historical & Future Projected Use and Demand–



Lower Colorado River Multi-Species Conservation Program–

The Road to the MSCP–

- 1994 “Big River” fishes critical habitat designation
- 1995 listing of southwestern willow flycatcher as endangered
- USBR initiated ESA Section 7 consultation for “routine LCR operations and maintenance activities”

LCR MSCP Program Planning Area–

Full pool elevation of Lake Mead to SIB, including the historic floodplain

What Activities does the MSCP cover?

- Routine LCR operations and maintenance activities (flow & non-flow related)
- Diversions and returns
- Non-federal flow and non-flow related activities within the planning area
- Changes in points of diversion of up to 1.574 mafy
- Generation of hydropower, and
- LCR MSCP implementation

Program Overview–

- 50-year Program
- Program budget – $626 million
- 31 species covered
- Create & maintain 8,132 ac. of –
  - 5,940 ac. cottonwood-willow
  - 1,320 ac. honey mesquite
  - 512 ac. marsh
  - 360 ac. Backwaters

- Stocking of razorback suckers and bonytail
- $500,000 to USFWS for humpback chub conservation in Grand Canyon above Lake Mead

Blend of ESA Sections 7 & 10, and CESA 2081

- The collaborative partnership shared the goal of preparing a program that—
  - Meets the regulatory requirements of ESA Sections 7 and 10;
  - Meets regulatory requirements of CESA ;
- Program underwent rigorous analysis pursuant to NEPA and CEQA too

Legal Underpinnings—

- 2005 Implementing Documents—
  - Federal: Biological & Conference Opinion
  - Non-Federal: Habitat Conservation Plan & Section 10 Permit
  - California: CESA Section 2081 Permit
  - NEPA/CEQA EIS/EIR Record of Decision
  - Implementation & Funding and Management Agreements between the Feds and Non-Feds
  - State Funding Agreements (AZ, CA, and NV)
  - Mainstream Water Use & Accounting Agreement
  - CA/USBR MOA regarding Program implementation and CESA obligations

CESA 2081 Permit Requirements–

- California participants are required to ensure that—
  - 1,566 acres of CW-W are established in CA
  - 1,048 acres of HM are established in CA
  - 240 acres of marsh are established in CA
  - 194 acres of backwater habitat is established in CA
  - 270,000 razorback sucker and 200,000 bonytail are repatriated to mainstream aquatic habits within CA portions of the LCR

Stakeholder Groups—57 Total

- Federal Group—DOI agencies + WAPA
- Non-Federal Group—State agencies and Ag., M&I, and Power entities
- Native American Tribes
- Other Public Interest Groups
- Conservation Groups

Covered Species–

- 26 “Covered Species”
  - *12 avian species*
  - *4 fish species*
  - *1 amphibian*
  - *2 reptiles*
  - *4 mammals*
  - *2 plants*
  - *1 insect*
- 5 “Evaluation Species”
  - *3 mammals*
  - *2 amphibians*

Key Covered Species–

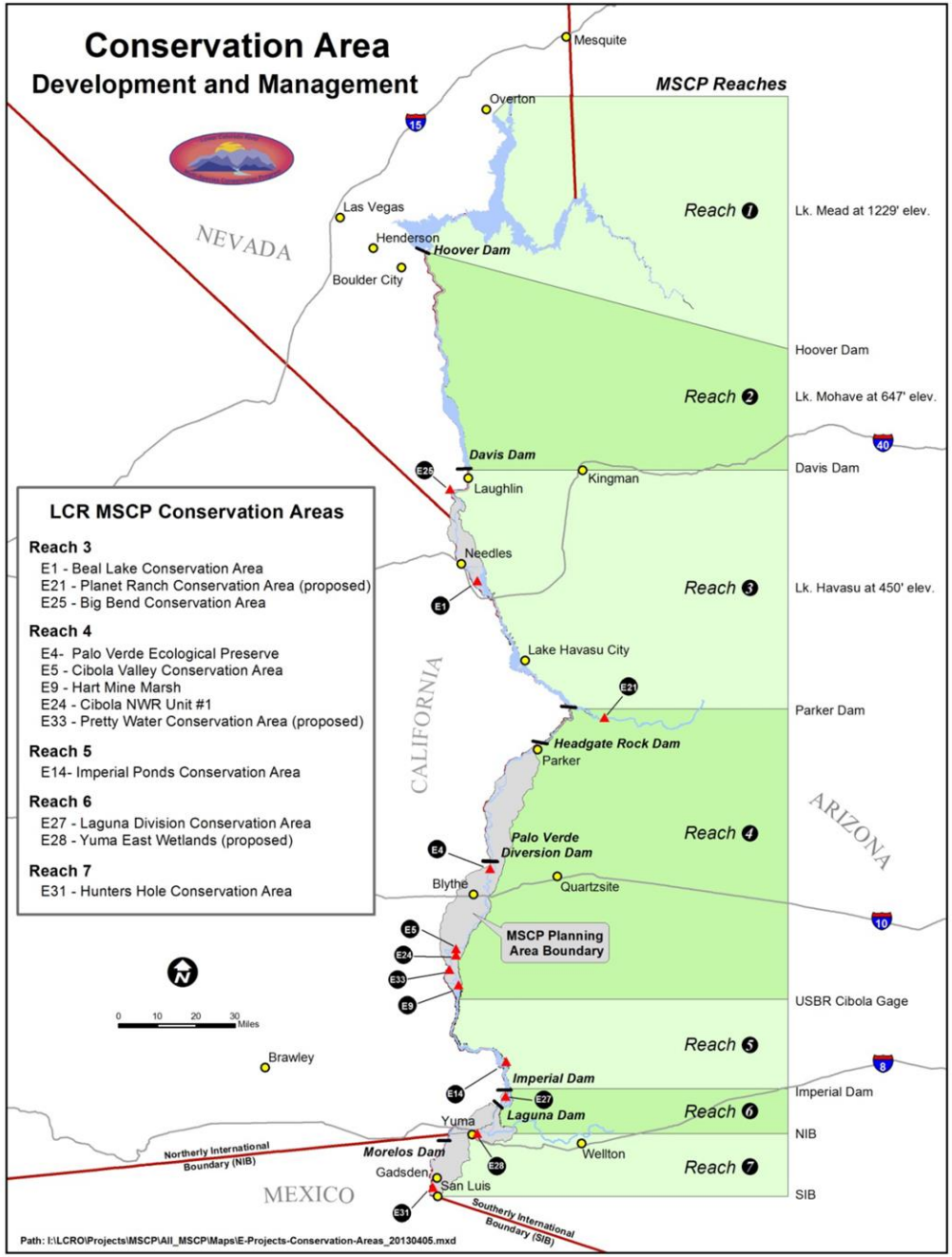
Razorback sucker

SW Willow Flycatcher

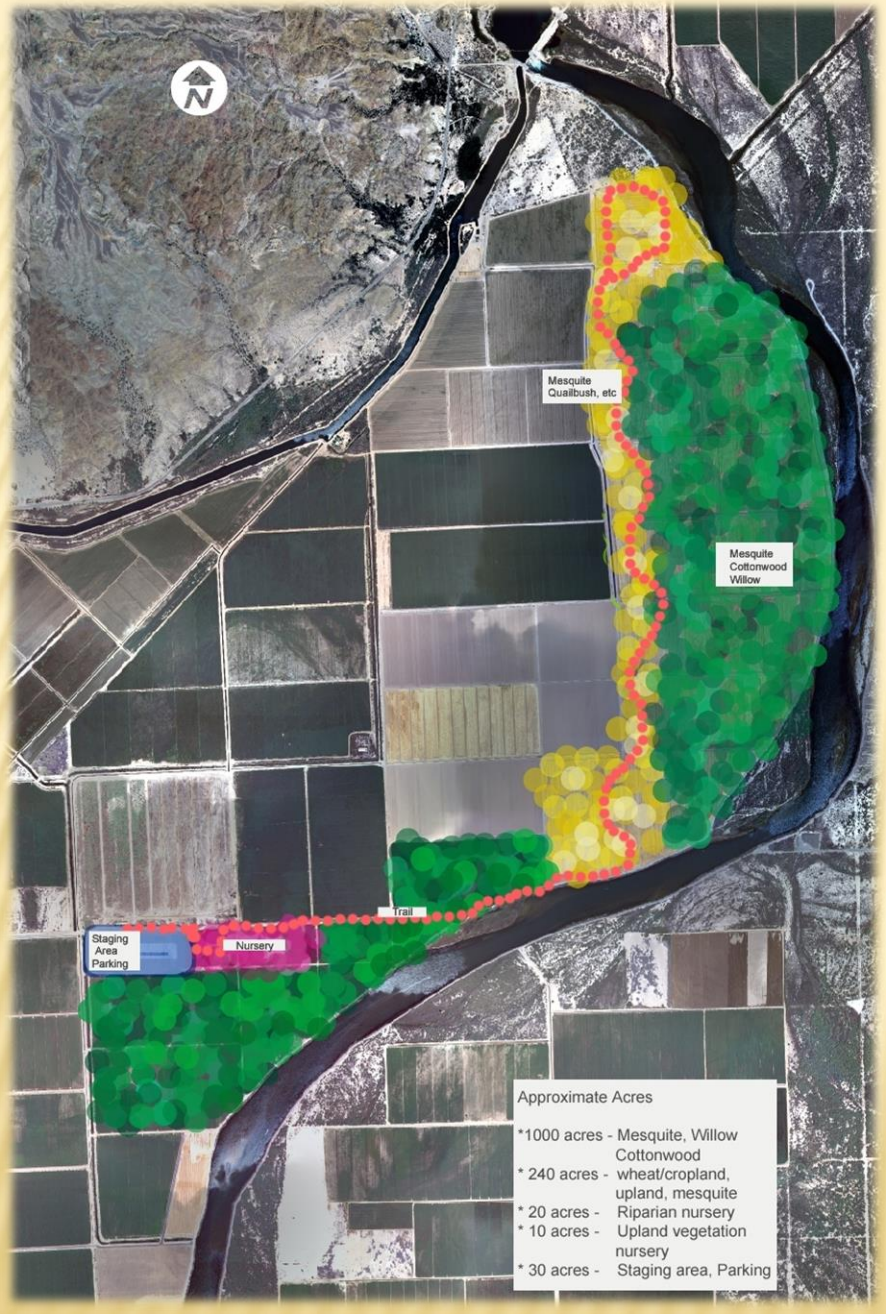
Bonytail

Yuma clapper rail

LCR MSCP Conservation Areas through 2014



Palo Verde Ecological Reserve—PVER



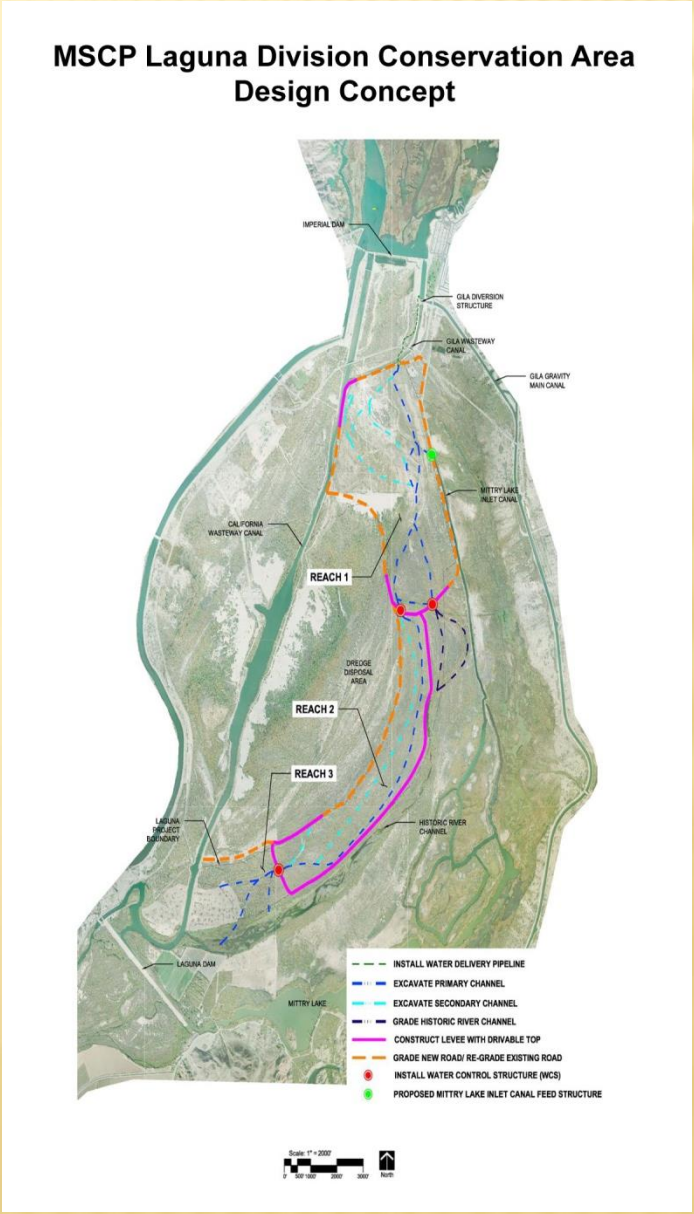
- Land is owned by California Department of Fish & Wildlife
- 1,300 acres restored with cottonwood-willow and mesquite habitat.
- Water available from the Palo Verde Irrigation District.

Photo courtesy of USBR-LC

Mass Planting Native Trees–

Cibola NWR–Hart Mine Marsh–

Laguna Habitat Conservation Area–



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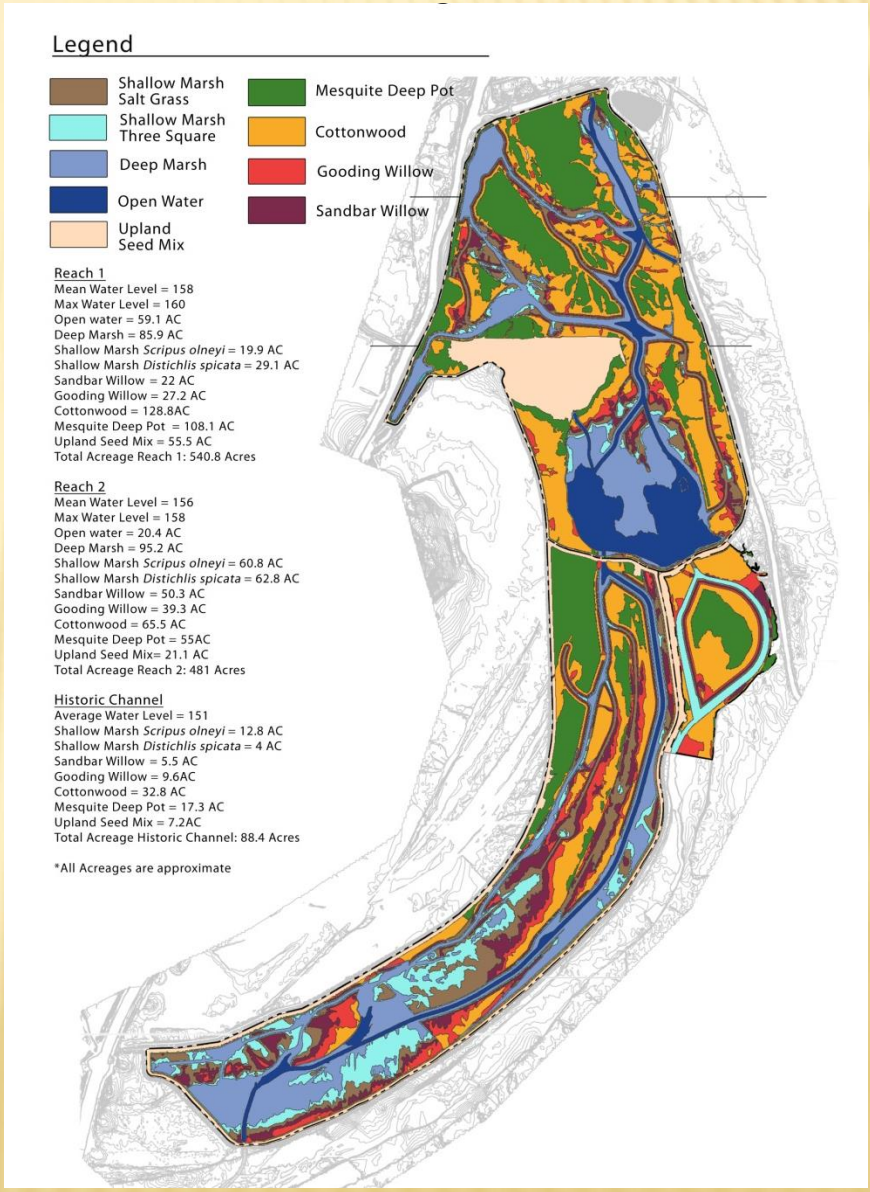

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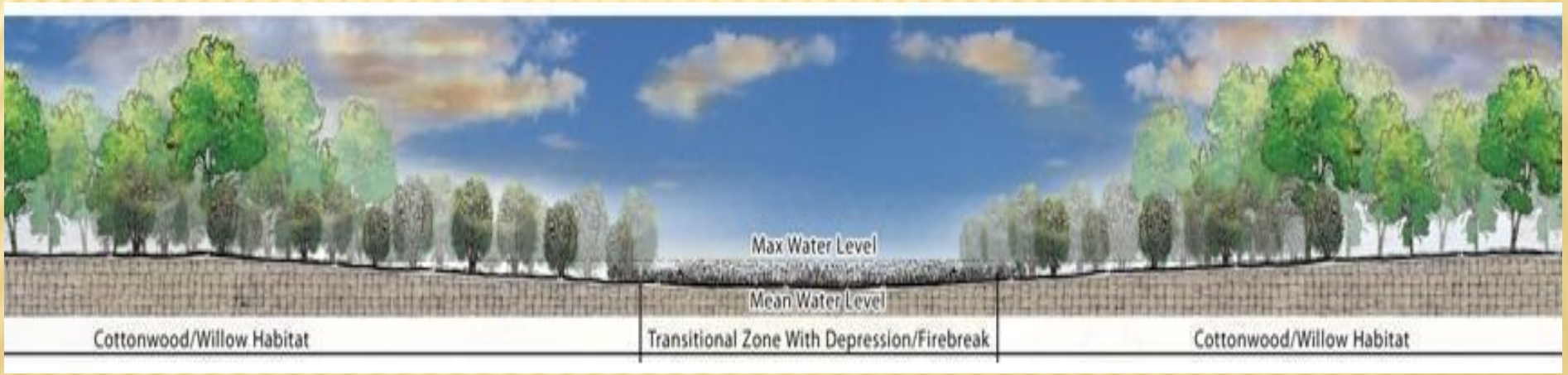
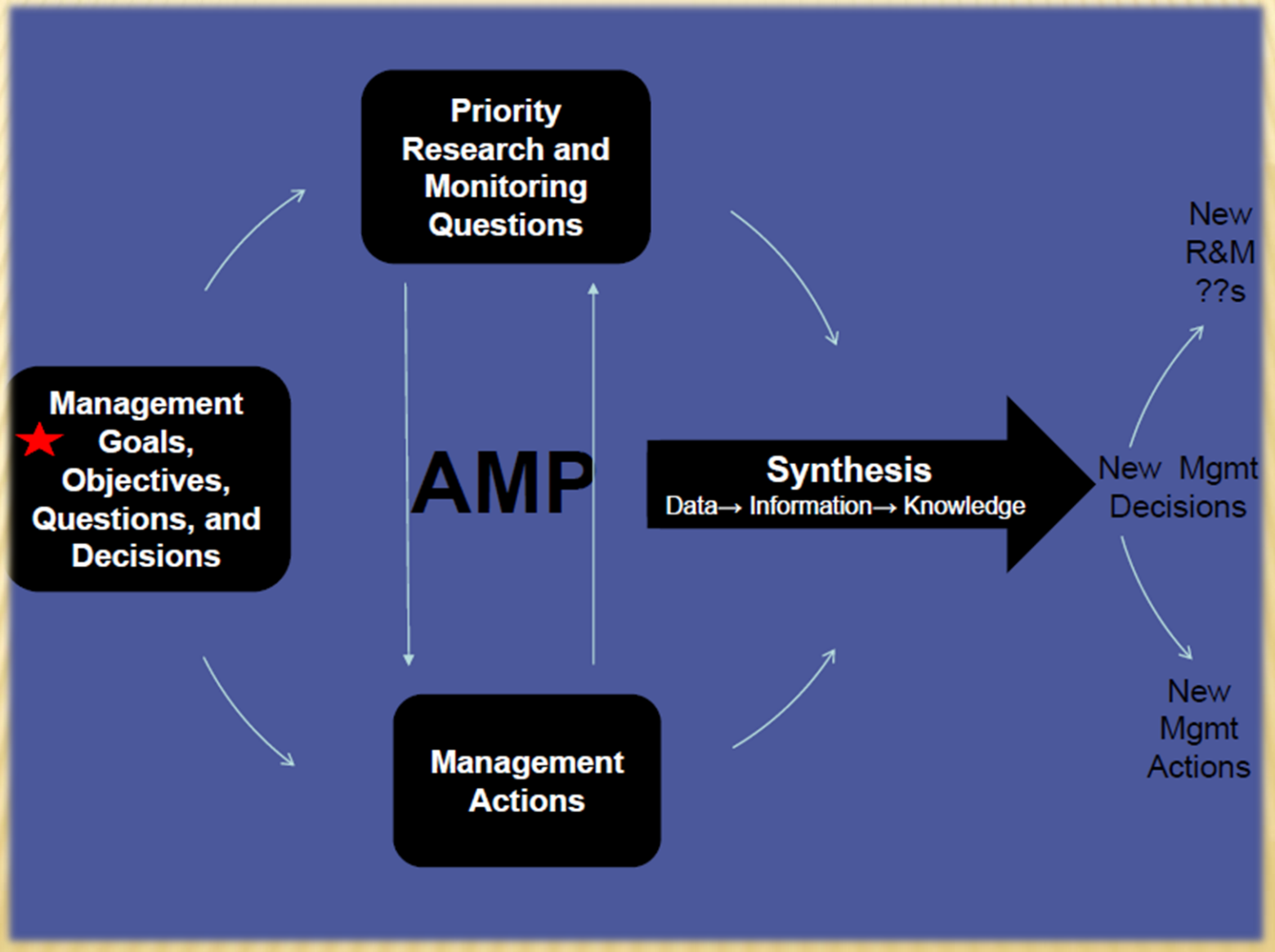


Hunter's Hole Cons. Area

Before

After

Monitoring/Research & Adaptive Mgt.—



Monitoring/Research & Adaptive Mgt.—

- Rolling 5-year Adaptive Management/Science Strategy
- Based upon R&M data, “Minor Modifications” have been made to Covered Species Conservation Measures (approved by USFWS and State wildlife agencies)
- Conceptual Ecological Models are being developed for all 26 Covered Species
  - Creates link between science activities & restoration site mgt.
  - Provides a framework for implementing species’ conservation measures
  - 21 species-specific CEMs will have been developed through FY-2015

Current Status–

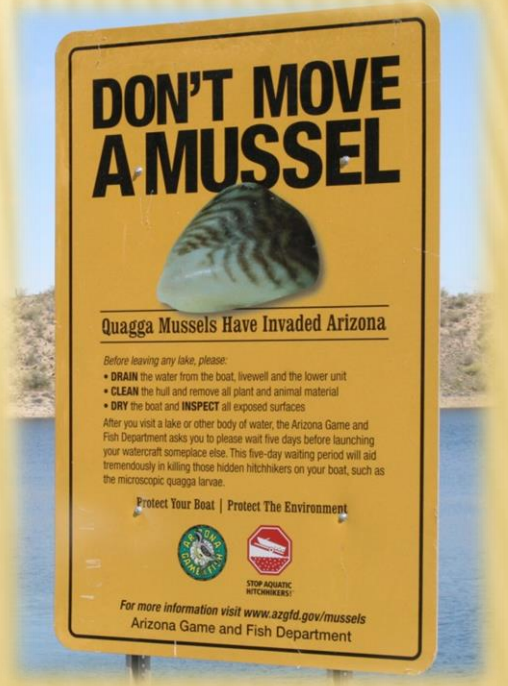
- Program is spending $25-35 million/year
- FY-2014 Work Plan/Budget was $35 million
- FY-2015 Work Plan/Budget is $37 million
- Total Land Cover Types created through FY-2013 –
  - 3,000 acres of the total 8,132 acres required;
  - 1,000 acres restored in California
  - Covered species are using created/restored habitats (e.g., WIFL, YBCU, BEVI, YCR, BLRA, bats, etc.)
- Native Fish stockings through FY-2013—
  - 215,000 RASU
  - 60,000 BONY

"Hits & Misses"–

- What's Working—
  - Long-term environmental compliance is in place ;
  - Benefits to CA & LB States—QSA implementation, Water Banking, 2007 Interim Guidelines, etc.;
  - Adaptive management process is successful;
  - Knowledge gained about species , data collection and management, habitat restoration techniques;
  - Public outreach & education;
  - Sharing information with other efforts
- What's Not Working—
  - Native/non-native fish interactions;
  - Controlling non-native aquatic and terrestrial species;
  - Finding suitable lands in CA for restoration

Current Issues of Concern–

- Quagga mussel infestations
- Salt cedar and Salt cedar beetle defoliation along LCR;
- Finding 2,000+ acres of land in CA
- Native/Non-native fish interactions



Administration & Oversight–

- Steering Committee
  Provides policy-level oversight, approves Work Plan & Budget

- Technical Work Group
  Provides technical assistance, reviews annual work plans

Yellow warbler